

ABSTRACT

This invention provides a metal powder for powder magnetic cores, which have good insulation performance and high magnetic flux density, and which is favorable for motor cores. Ferromagnetic metal powder may be coated with a coating material and a phosphate or phosphoric acid compound containing aluminum is used for the coating material. Coating the surface of iron powder with aluminum phosphate realizes to produce high-quality powder magnetic cores that have good insulation performance and high magnetic flux density and are favorable for motor cores. Further coating the aluminum phosphate-coated metal powder with silane compound or surfactant realizes more stable compressed shaped articles of the powder. And the properties of the articles do not fluctuate while stored for, so long as they are resistant to moisture. This invention contributes to producing powder magnetic cores for motors, and to the process for powder magnetic cores, furthermore, to the related art field.